

Abstract of the Disclosure

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A channel allocation (FA) system for use in a wireless communication system includes a controller, d number of
5 combiners, d number of switchable power divider/combiners and
d number of switches. The FA system allocates FAs to N number
of sectors of a base transceiver station. In the system, the
controller groups N sector into M small groups and determining
d and f, wherein N and M are positive integers and d and f are
10 the number of dynamic FAs and the number of fixed FAs,
respectively. The combiners combine the dynamic and the fixed
FAs for said each small group and output d number of signals.
The switches selectively connect the output signals to the
switchable power divider/combiners, whereby the switchable
15 power divider/combiners amplify signals inputted thereto at
the same level in amplitude. Although the BTS switchably
shares the dynamic FAs at each of the sectors, its service
coverage area does not change because the final output power
level of each FA is the same in amplitude. Therefore, both
20 the number of total FAs allocated to the BTS and the related
devices can be reduced without changing its service coverage
area.